Prepping and Painting Boat Bottoms
Antifouling paint

Potential Environmental Impacts:

Most antifouling paint contains elemental copper, cuprous oxide (a copper compound), or tinoxide compounds (tributyl tinoxide) which kill organisms attempting to attach to a painted surface. By design, antifouling paints are toxic to marine life and can be absorbed by edible fish and shellfish. The toxins in antifouling paints enter the environment through spillage, sanding, sand blasting, or scraping. Antifouling paint chips left on the ground or driveway can be transported into the water by stormwater runoff. The toxicants in antifouling paint can be passed up the food chain from mussels and worms to fish, birds and humans.

Legal Requirements:

- The use of anti-fouling tributyltin (TBT) containing paints with a release rate greater than 4.0 micrograms per square centimeter per day is prohibited in the state of Connecticut [RCSA §22a-66-2(c)(4)(D)].
- The owner or agent of a commercial boatyard may possess and apply TBT-containing antifouling paint if the paint is applied only within a commercial boatyard and (i) is applied to vessels exceeding 25 meters in length, or (ii) is applied to aluminum hulls [RCSA §22a-66-2(c)(4)(C)].
- No person may use a federally restricted-use pesticide, such as TBT, except under the supervision of a certified applicator [RCSA §22a-66-3(a)]. Applicators must be certified and licensed in accordance with RCSA §22a-66-5.
- A hazardous waste determination must be conducted to establish whether or not disposal of traditionally used antifouling paints, in solid or liquid form, is subject to hazardous waste regulations [40 CFR 262.11; RCSA §22a-449(c)-102(a)(2)(A)]. A hazardous waste determination must also be conducted on any materials used to clean a spill. Manage hazardous waste as described in Appendix B.
- If there is a stormwater discharge from your facility, you may have to register for a *General Permit for the Discharge of Stormwater Associated with Industrial Activity* ("Stormwater General Permit"). See Appendix F for more information.

Best Management Practices:

✪ Switch to long-lasting, low-toxicity antifouling paint. Recommend anti-fouling paints containing the minimum amount of toxin necessary for the expected condition to your customers. Stock only those in the ship store.

✪ Stay informed about antifouling products, like Teflon, silicone, polyurethane, and wax that have limited negative impacts. Pass on the information to your customers.

✪ Discourage use of antifouling paint on boats kept in fresh water, except where invasive species like zebra mussels are a problem.

- ✪ Recommend that boats that are rack stored or trailered use alternatives to antifouling paint such as polyurethane, bottom wax, or non-metallic epoxies, since antifouling paint is not necessary for boats that are not continuously in the water.
- ✪ Use dust-collecting sanders when sanding anti-fouling paint.
- ✪ Sandblasting is not recommended for removal of antifouling paint. If sandblasting is necessary, see "Abrasive Blasting" fact sheet.
- ✪ Sweep and collect paint chips (don't hose) immediately after scraping or sanding.
- ✪ Mix paints and solvents away from the water and prevent dripping into the water. Avoid mixing paint or cleaning brushes on open floats or other structures over the water.
- ✪ Use drip pans, tarps and sheeting to contain droppings and spilled materials. Drip pans should be used for all paint mixing, solvent transfer, or equipment clean up operations unless the operations are conducted in controlled areas away from storm drains, surface waters, shorelines, piers, docks or floats. Weight the bottom edges of tarps and plastic sheeting to keep them in place.
- ✪ Mix only enough paint necessary for a job.
- ✪ Save excess or unused antifouling paint for future uses.
- ✪ Reuse solvents and thinners by draining the clean product off the top once solids settle out.
- ✪ Prohibit in-water bottom cleaning, hull scraping, or any process which occurs underwater that could remove antifouling paint from the boat hull. Although this is a popular practice for racing boats prior to a race to reduce drag, it is impossible to treat what's cleaned from the boat bottom.
- ✪ If in-water bottom cleaning is allowed, require that customers or contractors use only soft sponges to clean marine growth, and to use stainless steel pads or brushes only on unpainted metal areas (never on bottom paint). Colored plumes of paint in the water near underwater cleaning activity should not occur.

Checklist for Clean Marina Certification:

✔ Do you recommend less environmentally damaging bottom coating?

YES NO N/A

✔ Do you disallow in-water hull scraping or any process that occurs underwater to remove paint from the boat hull?

YES NO N/A

✔ Do you contain the dust from boat bottom prep work and sanding?

YES NO N/A